

1

### POP-UP LETTERS AND CHARACTERS

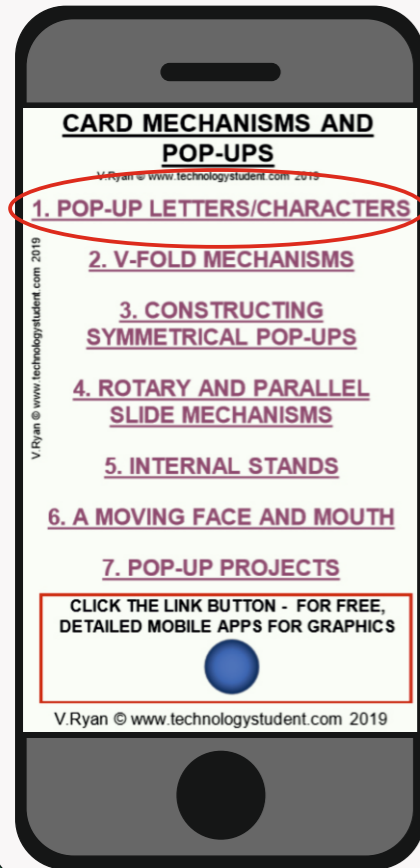
TO ANSWER ALL THE QUESTIONS, YOU WILL NEED TO DOWNLOAD THE 'CARD MECHANISMS AND POP-UPS' APP, FROM THE INTERACTIVE MOBILE APP SECTION OF [www.technologystudent.com](http://www.technologystudent.com)

**LINK**

<http://www.technologystudent.com/mobapps/card%20mechanisms%20and%20pop-ups1.pdf>

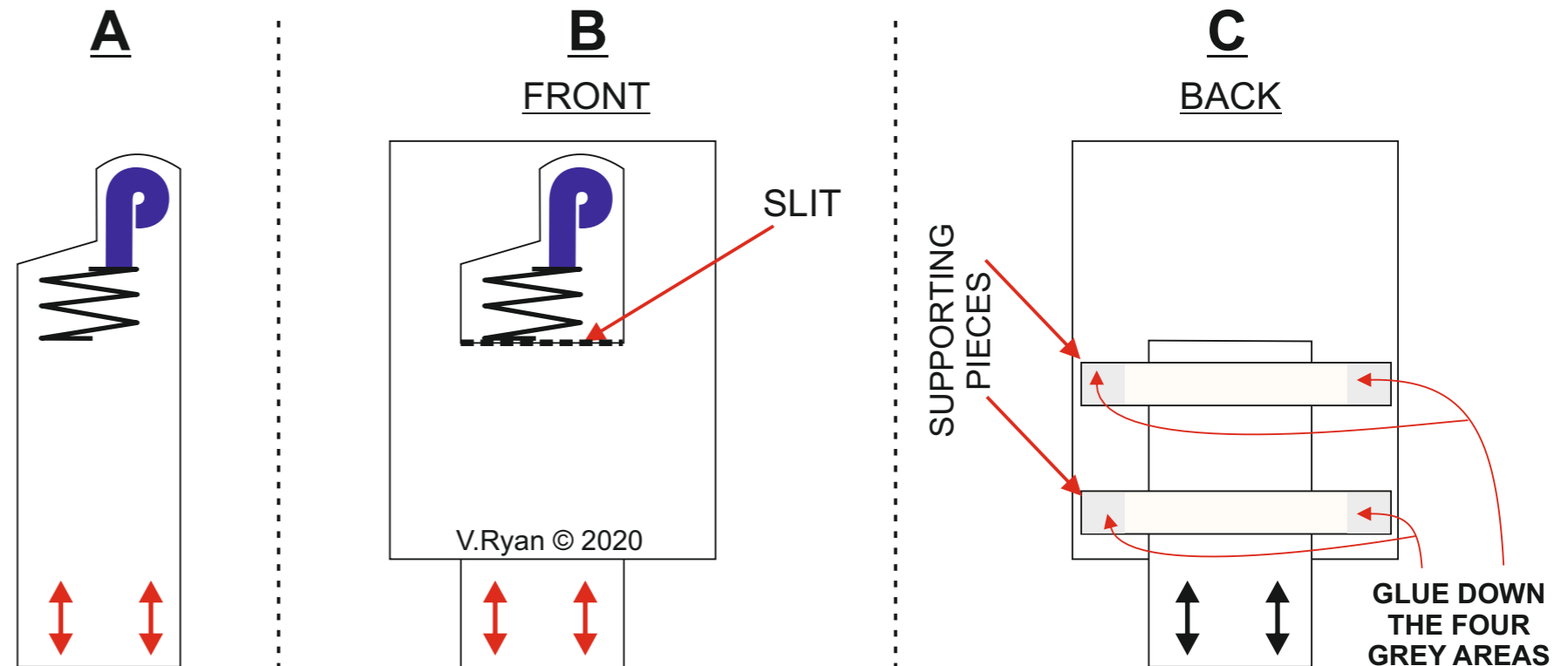
Once you have downloaded the App, you can use it to navigate the website. You may need to follow the links on each page of the App, to research / complete answers to all the questions.

**ARE YOU READY?  
USE THE MOBILE App!!**

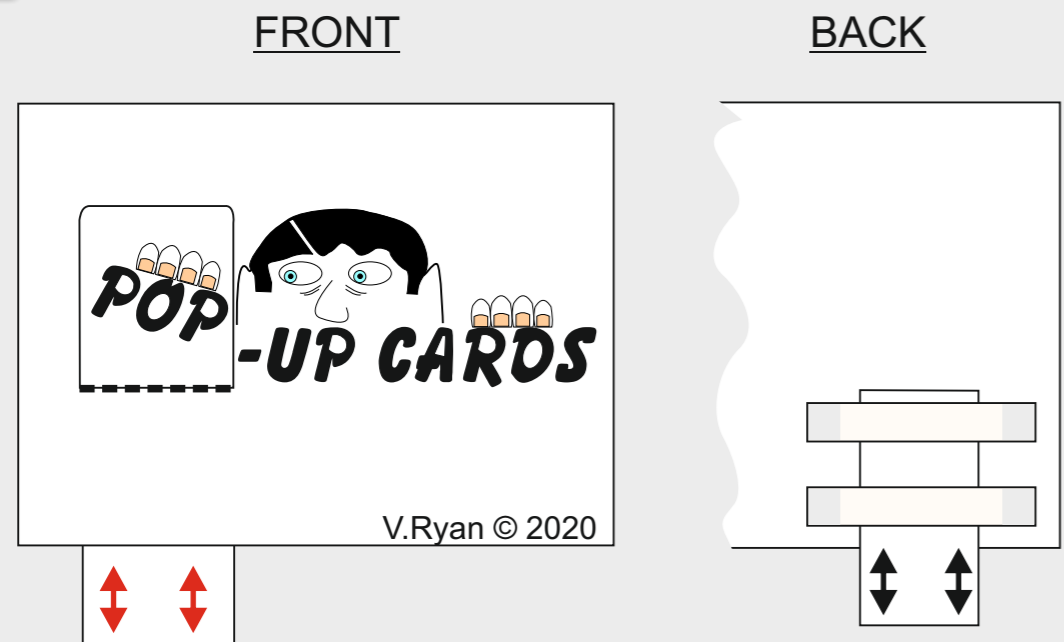


Draw a letter on a thin piece of paper/card, as shown in diagram 'A'. Cut a 'slit' in a second piece of paper/card, as indicated by diagram 'B'. Then, fit the thin piece of paper/card through the slit. Turn the card mechanism around and glue two supporting pieces of paper/card, allowing the sliding action of the mechanism.

★ USE THE APP FOR GUIDANCE MAKING THIS POP-UP ★



2



**HAVE A GO AT YOUR VERSION OF THIS POP-UP**



Attempt making this 'pop-up' character (OR your own character). Use the App to view an animation, that will help you workout, how this can be made.



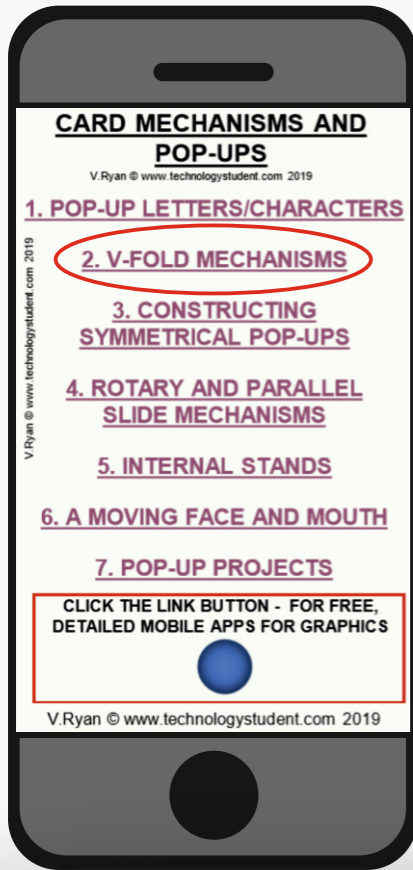
Draw the character and most of the letters, on the main piece of paper/card. The sliding paper/card, is separate and fits through the 'slit' in the main paper/card

★ USE THE APP FOR GUIDANCE MAKING THIS POP-UP ★

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★ USE THE APP FOR GUIDANCE WHEN MAKING THIS POP-UP ★



V-FOLD MECHANISMS

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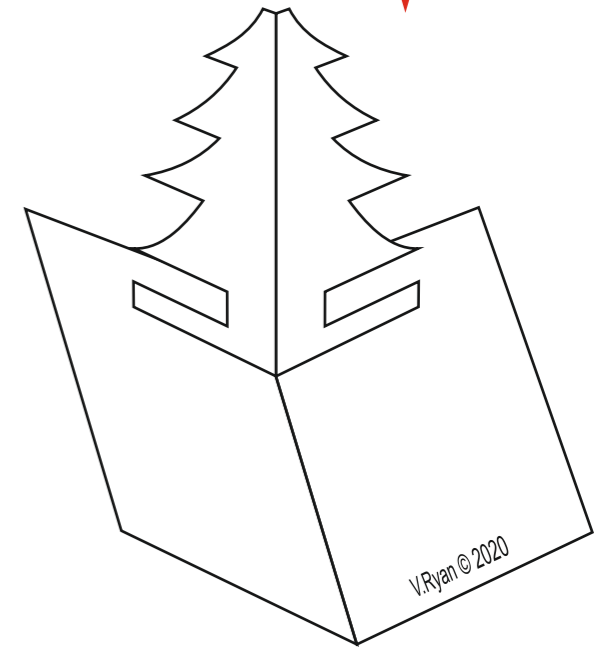
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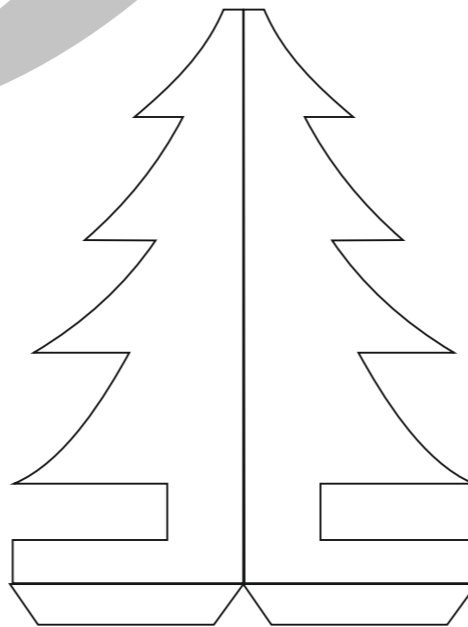
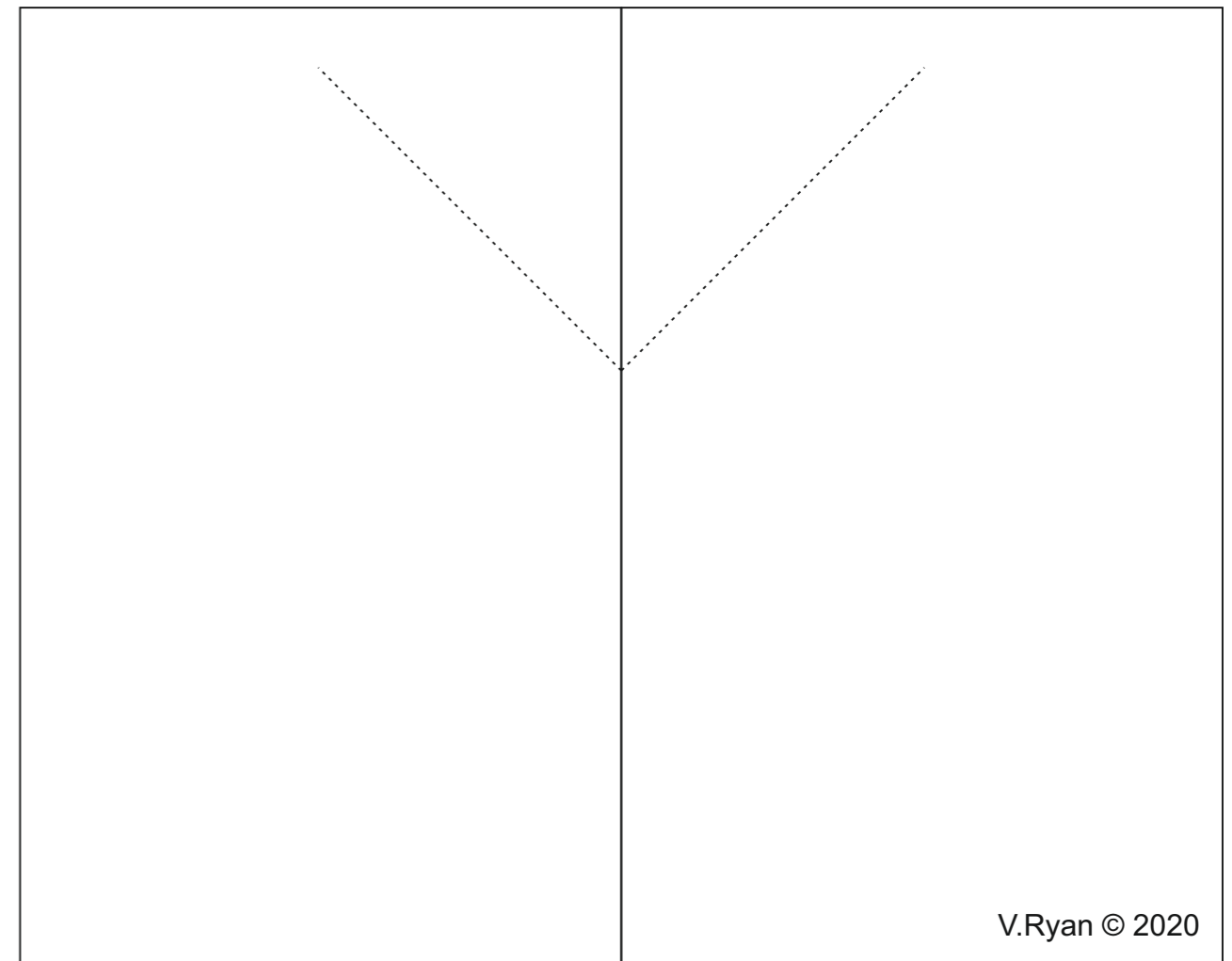
A basic pop-up card is shown opposite. It is a prototype Christmas card. Have a go at making it, using the templates below.

Add appropriate colour and shade to the pop-up Christmas tree, as well as any relevant detail (e.g. decorations). The final greetings card should have detail, colour, shade and relevant text, to all sides of the card. Cut out the pop-up and glue it in position (on the dotted lines).

Test the final prototype and write an evaluation regarding how it works. Include any improvements.



TEMPLATES



MY EVALUATION

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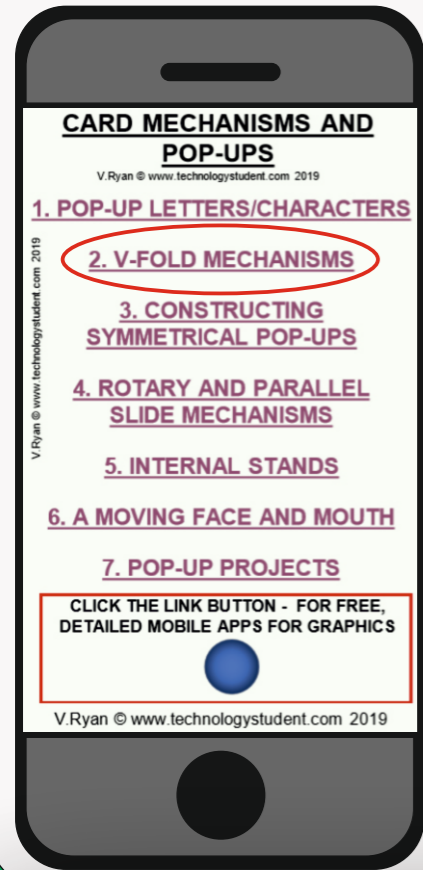


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★ USE THE APP FOR GUIDANCE WHEN MAKING THIS POP-UP ★



V-FOLD MECHANISMS

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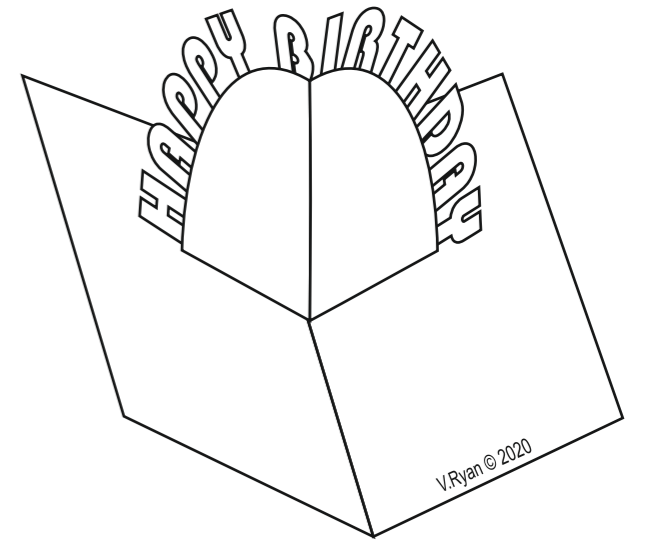
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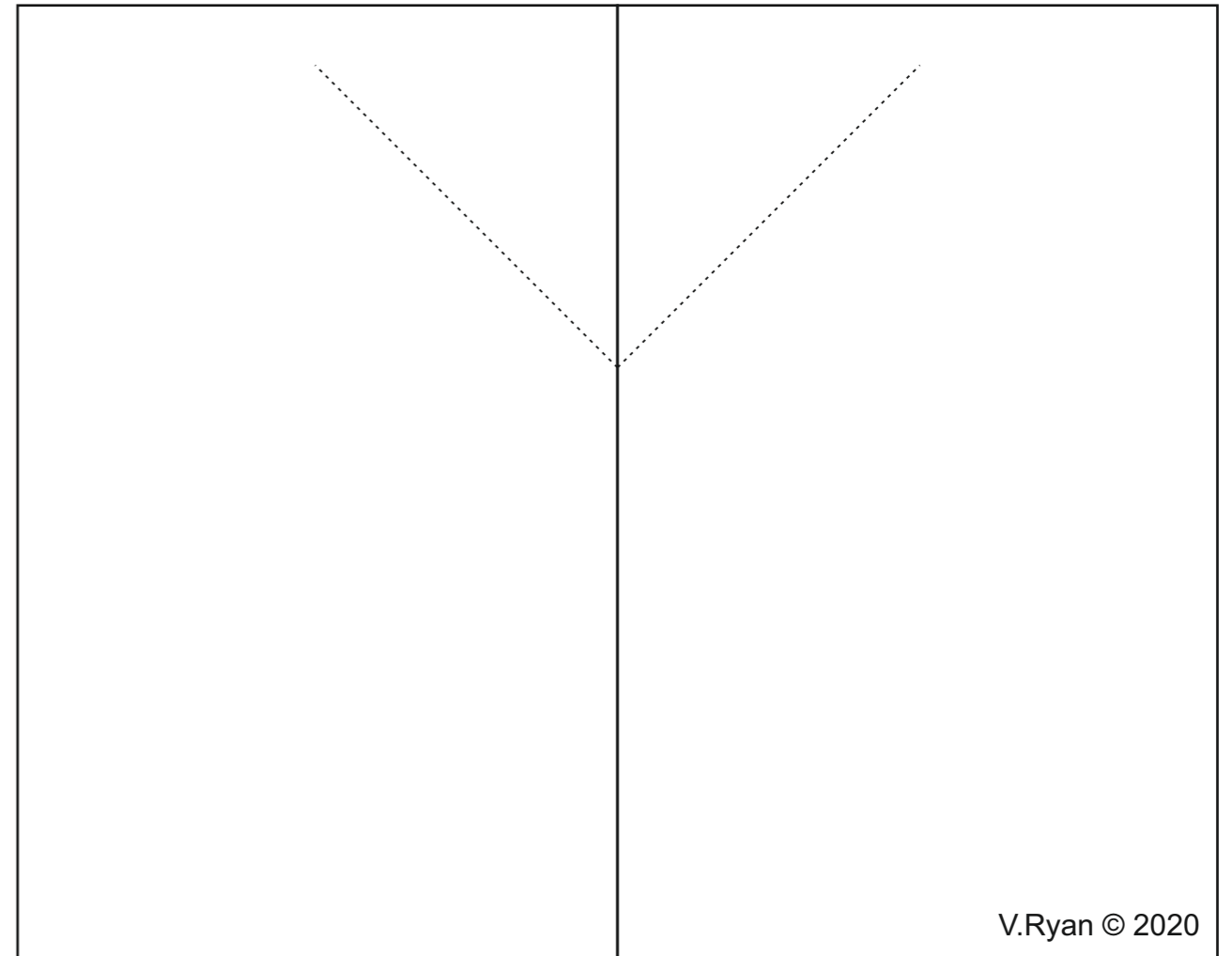
A basic pop-up card is shown opposite. It is a prototype birthday card. Have a go at making using the templates below.

Add appropriate colour and shade to the pop-up decoration, as well as any additional images etc.... The final birthday card should have detail, colour, shade and relevant text, to all sides of the card. Cut out the pop-up and glue it to dotted lines.

Ask a friend to evaluate your card and write this down.



TEMPLATES



V.Ryan © 2020

MY EVALUATION

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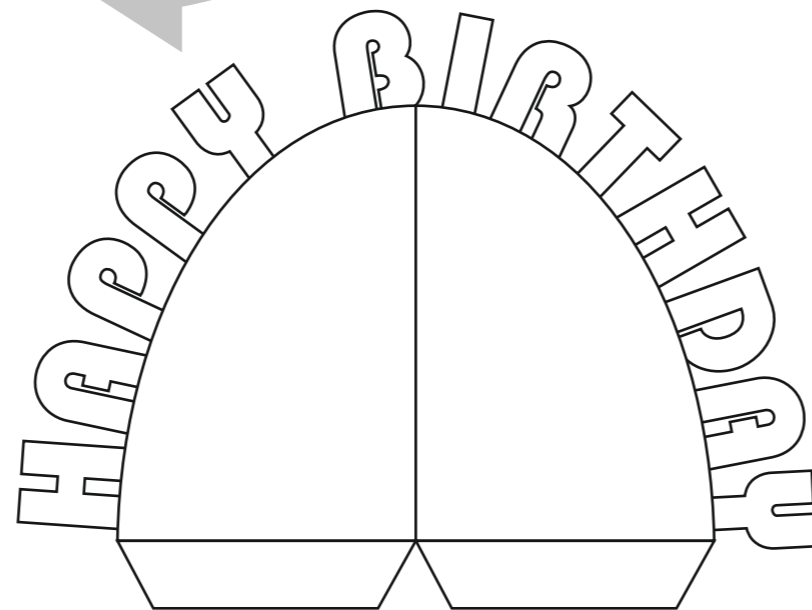
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## SYMMETRICAL POP-UPS

1

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This is another pop-up. It is symmetrical, as it is exactly the same on the right and left of the fold.

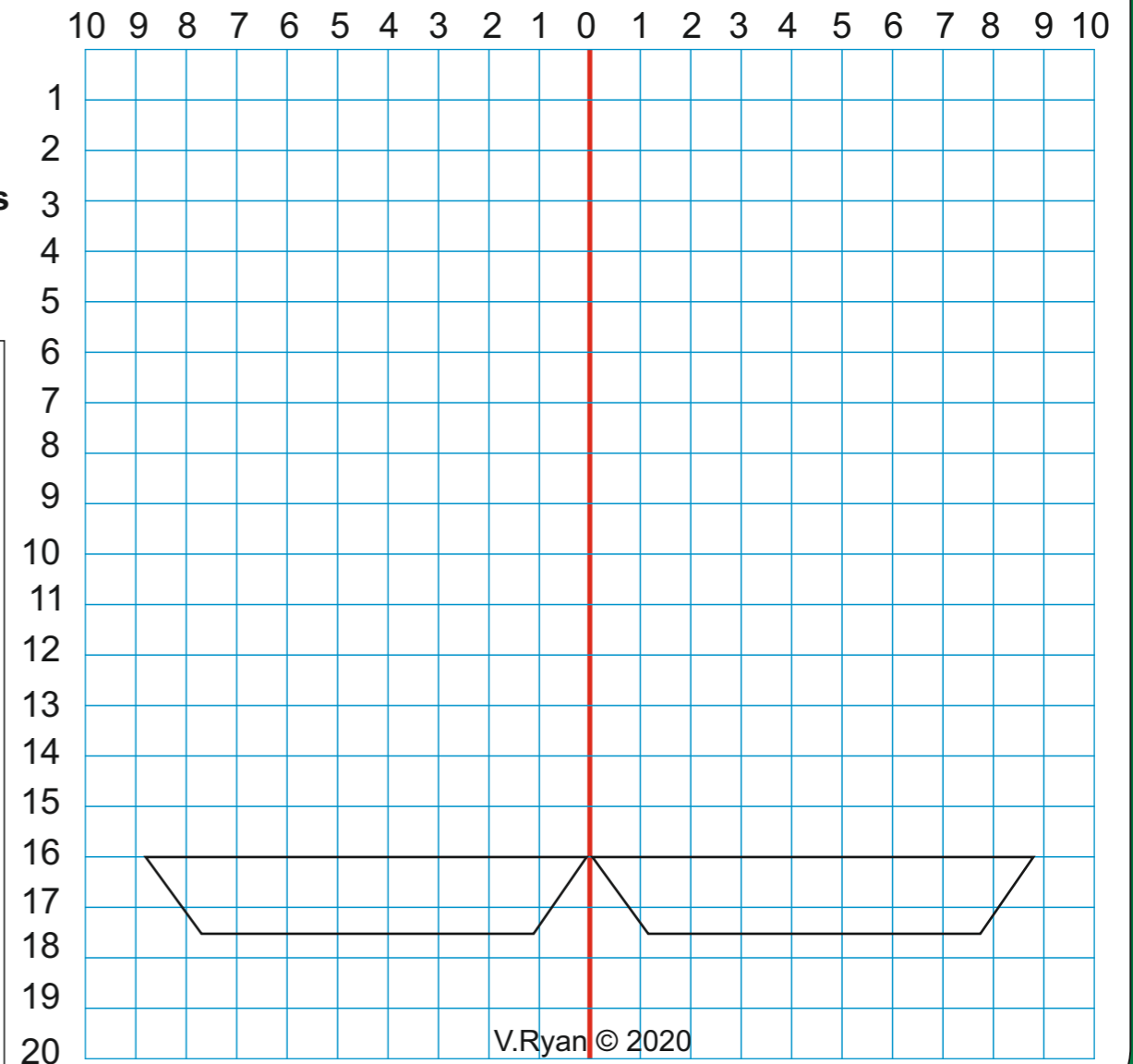
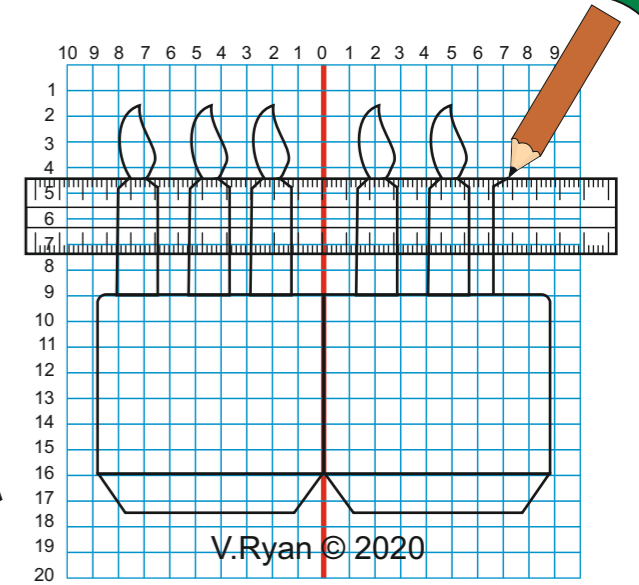
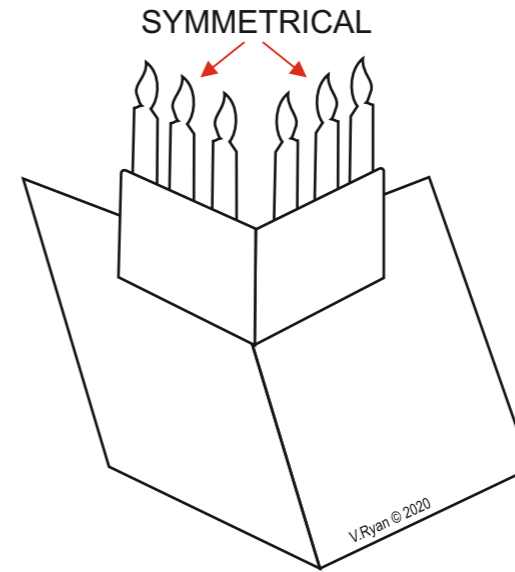
Using the grid below, draw the 'candles' design.

Add suitable colour and shade.

★ Remember to follow the App, for guidance. ★

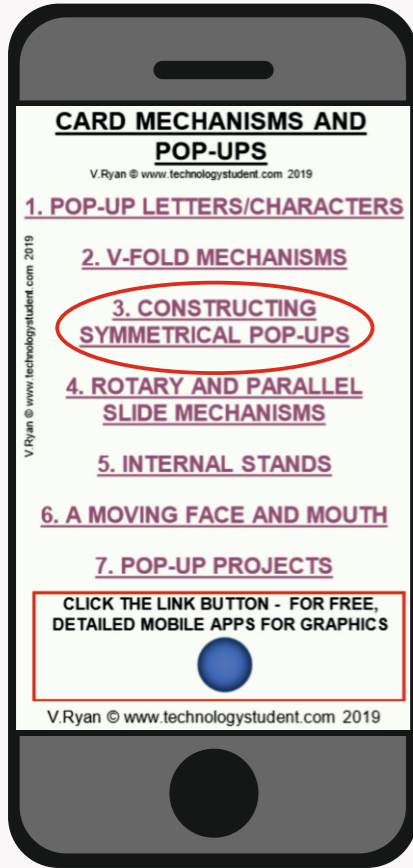
Cut out the symmetrical candles and glue them on to a card.

Do the candles fold flat, when the card is closed?



2

Search the internet for images that you think would be suitable as symmetrical pop-ups. Paste them below, or sketch them.



## SYMMETRICAL POP-UPS

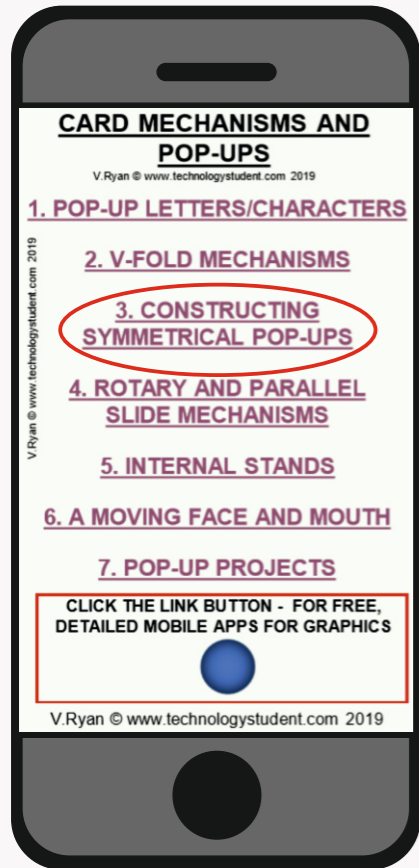
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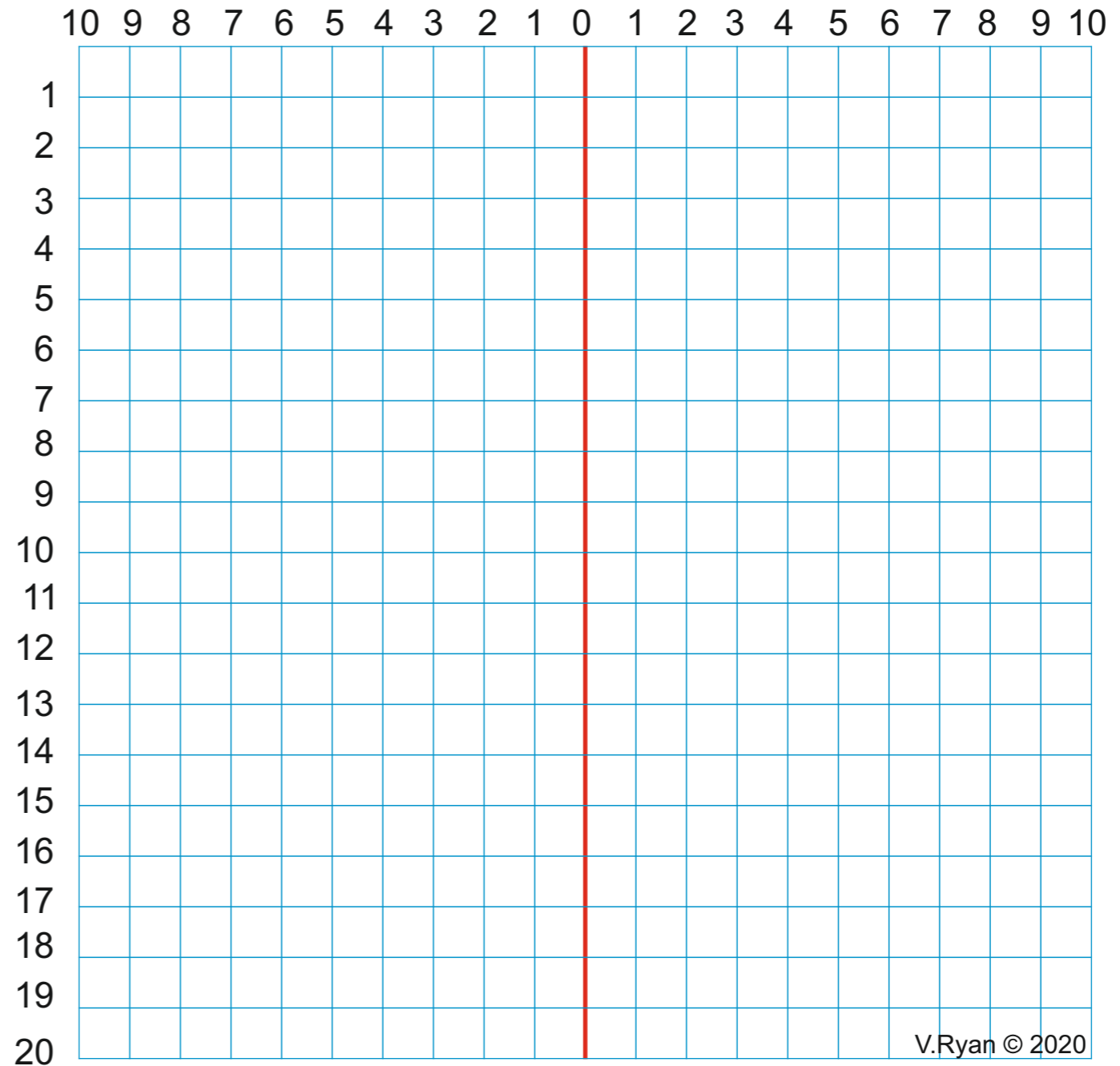
<http://www.technologystudent.com/mobapps/card%20mechanisms%20and%20pop-ups1.pdf>

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**ARE YOU READY?  
USE THE MOBILE App!!**



## YOUR DESIGN FOR A SYMMETRICAL POP-UP CARD



1

Using the grid (opposite), design your own symmetrical pop-up card. The images you collected and pasted on the previous page, may help you develop, an imaginative design.

Add suitable colour and shade.

★ Remember to follow the App, for guidance. ★  
*The App will lead to an alternative way of drawing symmetrical pop-ups, that you may prefer.*

Cut out your symmetrical pop-up and glue it on to a card.

Does your design fold flat, when the card is closed?

HELPFUL LINK: <http://www.technologystudent.com/mobapps/card%20mechanisms%20and%20pop-ups1.pdf>

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## ROTARY AND PARALLEL SLIDE MECHANISMS

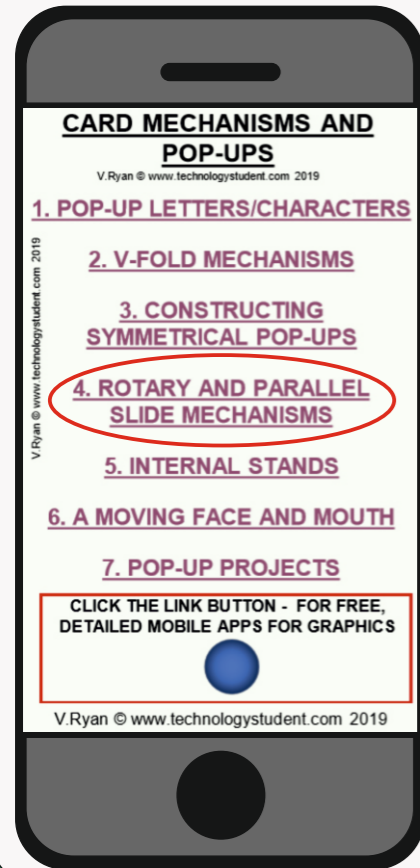
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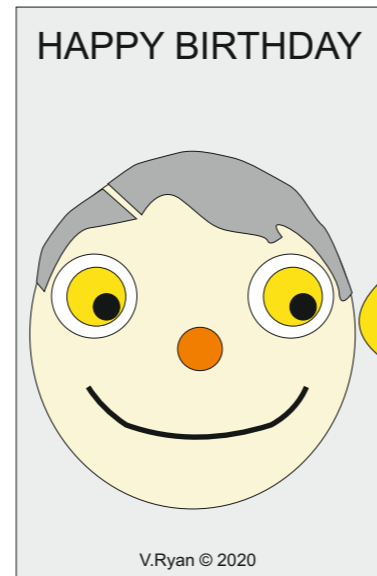
**ARE YOU READY?  
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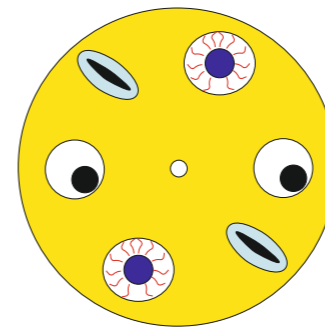
Rotary mechanisms can be used in interesting ways. The greetings card below, allows the user to rotate a circular card disk. This changes the eyes on the front of the card. A brass split pin, holds the disk to the card, but allows it to rotate.

★ USE THE APP TO SEE THE CARD WORKING.★

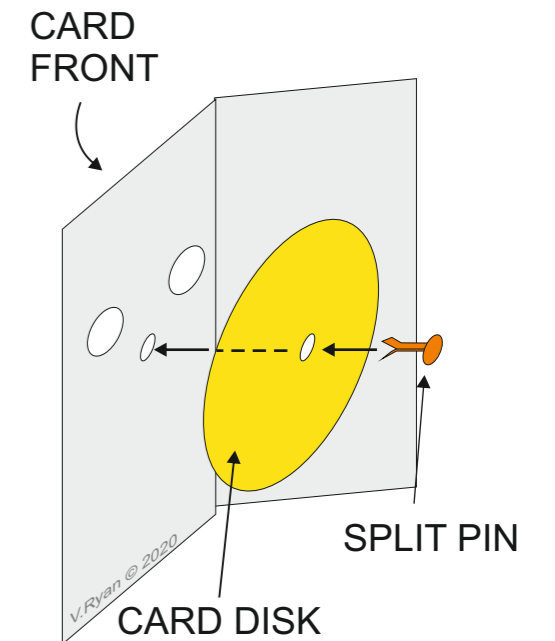
### EXAMPLE CARD



### ROTATING CENTRE



### CARD ASSEMBLY



In the space opposite, collect or draw images, that could be useful for your rotary card design.



On separate paper, design the front of the card (for example, a birthday card or greetings card)

Make your Rotary Greetings Card and test it out.



List the materials and equipment you will need, to make your Greetings Card.

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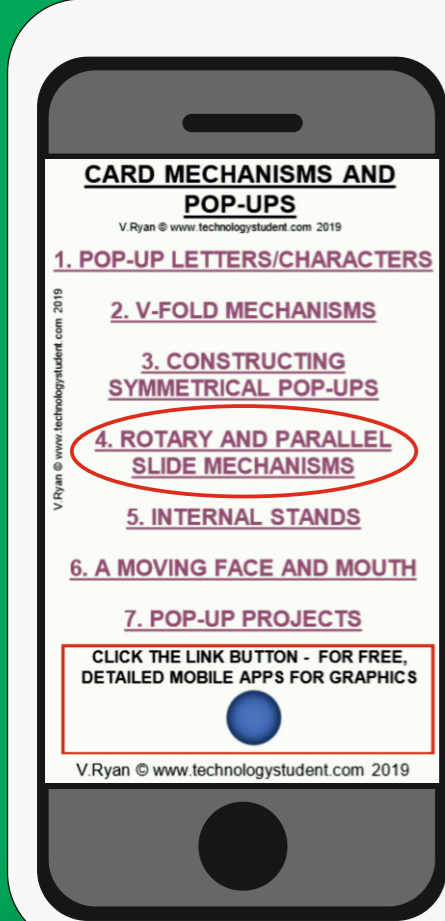


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## ROTARY AND PARALLEL SLIDE MECHANISMS

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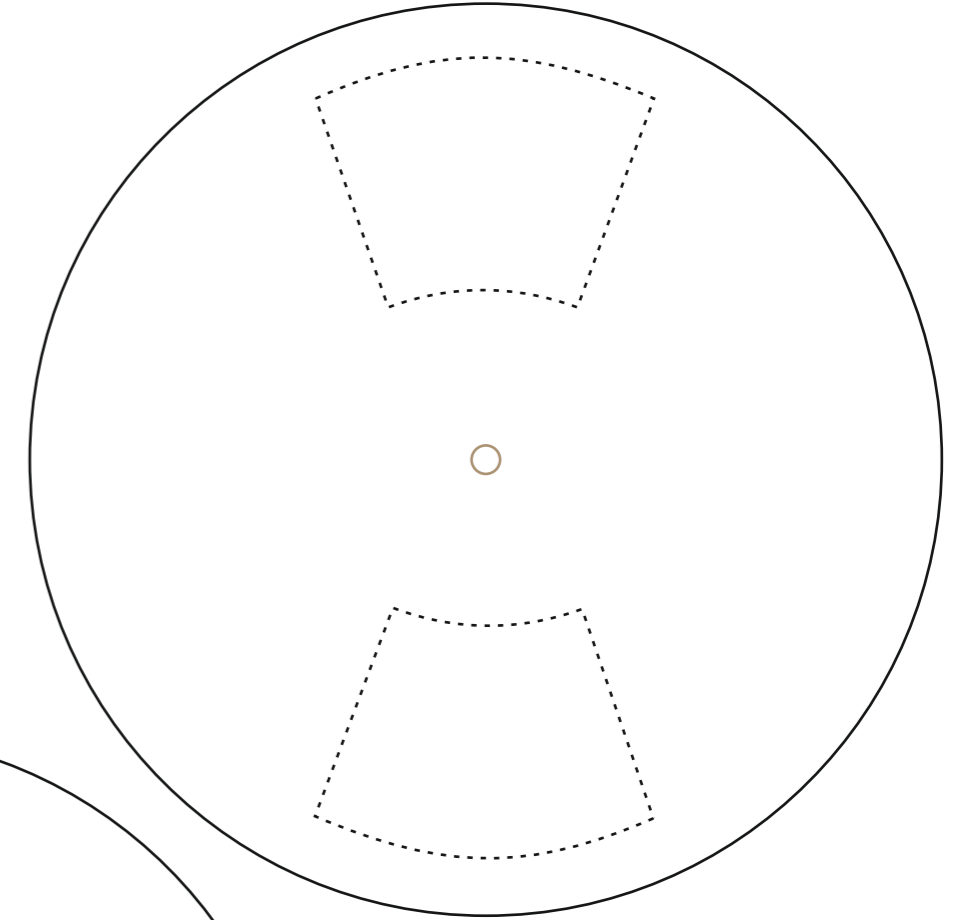
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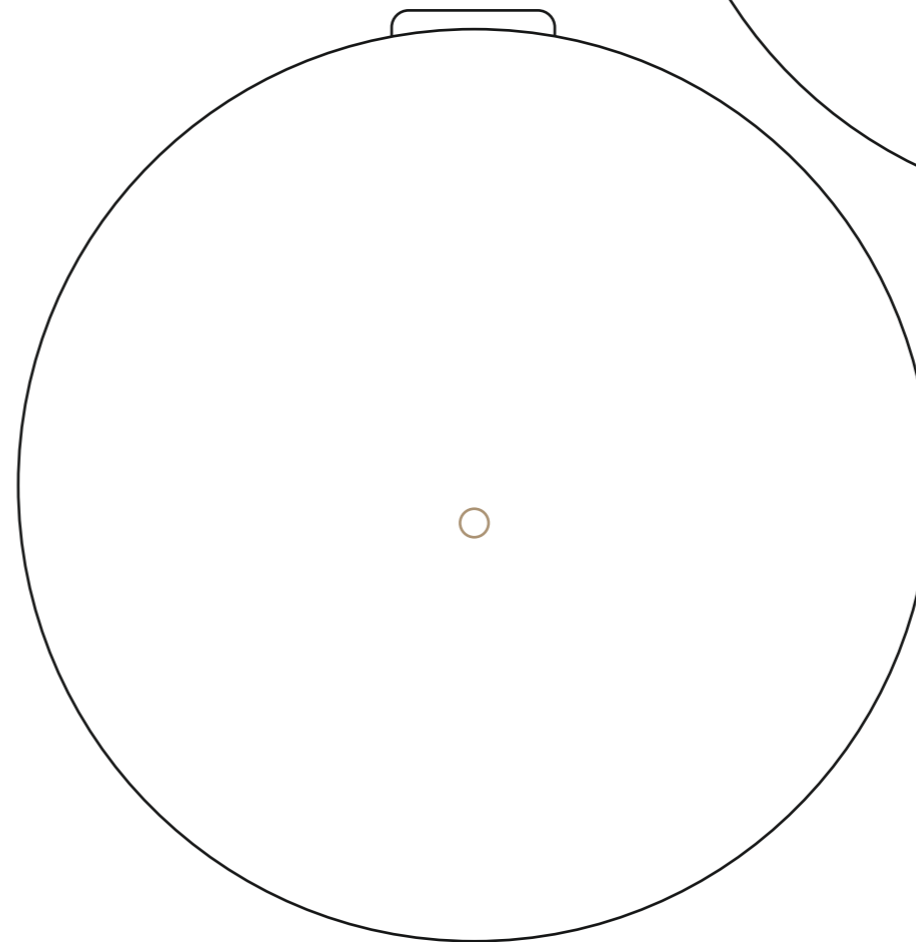
★ USE THE APP FOR GUIDANCE WHEN MAKING THIS ROTATING DISK ★



DISK ONE



DISK TWO



1

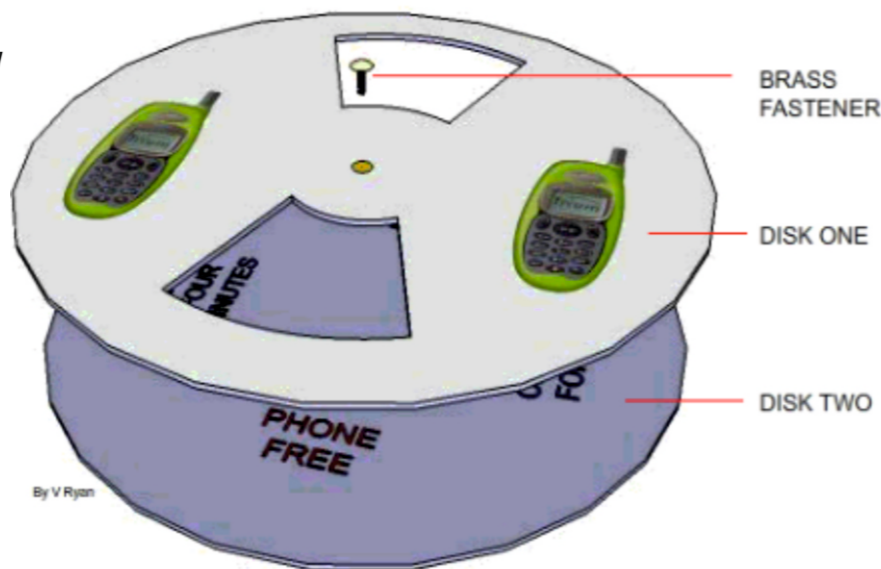
The rotating disk seen below, is a promotional device, manufactured from card and aimed at promoting a new mobile phone design. The disk rotates revealing important information, for potential customers.

*Templates for you to cut out, are seen opposite.*

On DISK ONE, draw images / designs, to help promote your design of a mobile phone. Cut out the slots along the dotted lines.

Add text and drawings to the DISK TWO.

Remember, the drawings and text can only be seen through the slots cut in the top disk.



HELPFUL LINK: <http://www.technologystudent.com/mobapps/card%20mechanisms%20and%20pop-ups1.pdf>

## INTERNAL STANDS

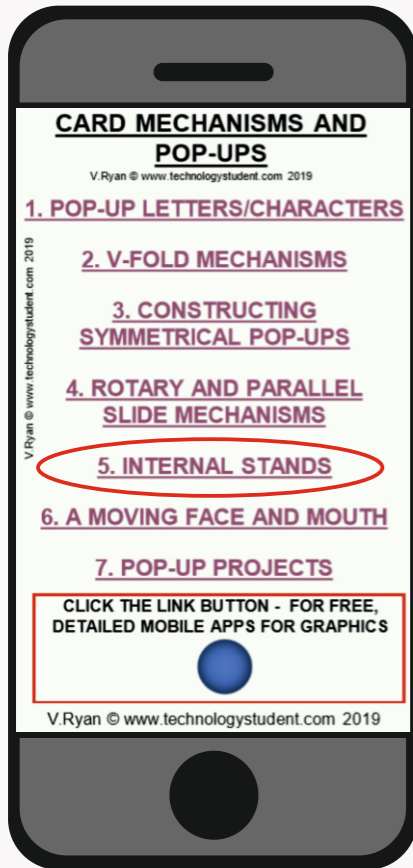
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**ARE YOU READY?  
USE THE MOBILE App!!**



★ USE THE APP FOR GUIDANCE WHEN MAKING THIS POP-UP ★

### YOUR DESIGN AND ROUGH IDEA

1

Using the App for guidance:

Design your own pop-up card **MECHANISM**, based on the techniques shown at the bottom of this page. Use the 'Design and Rough Idea' area, for developing your design.

Then, make it from card and test it out.

Did your design for the card mechanism work?

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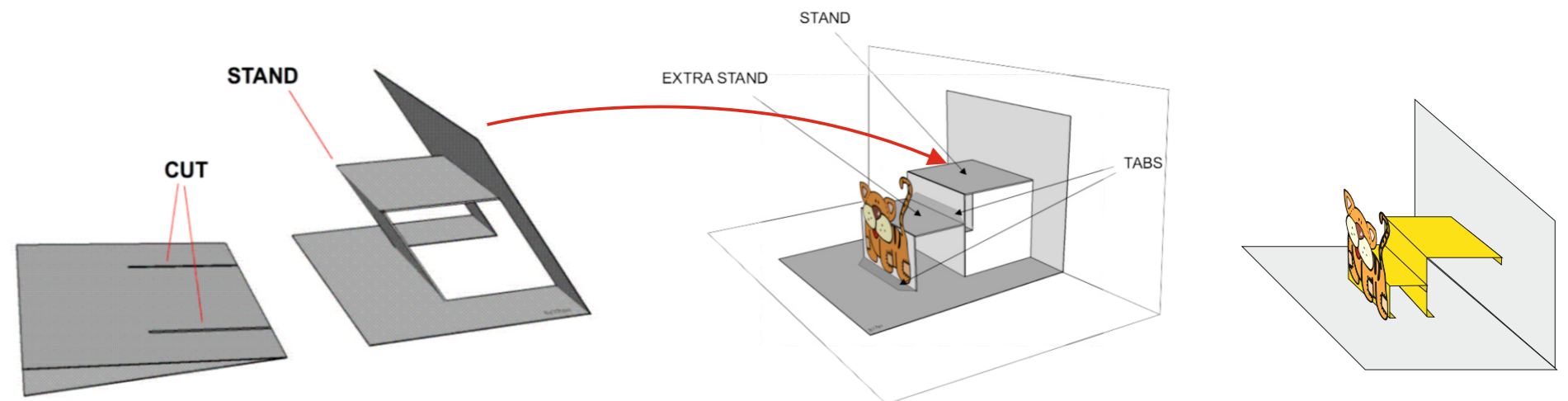
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## MOVING FACE / MOUTH MECHANISM

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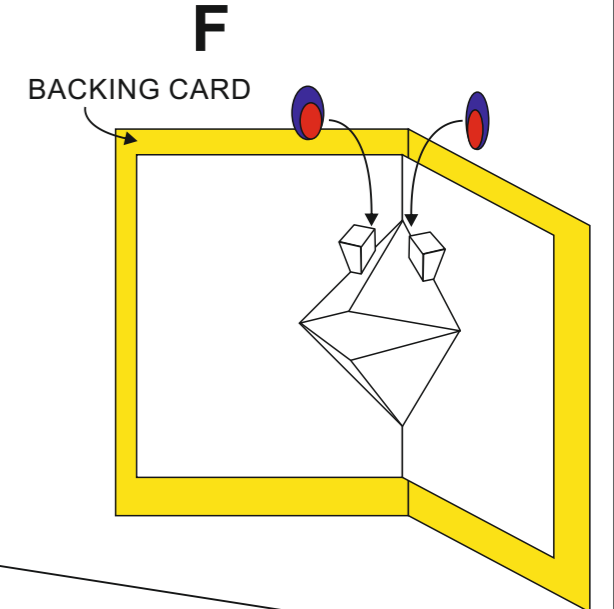
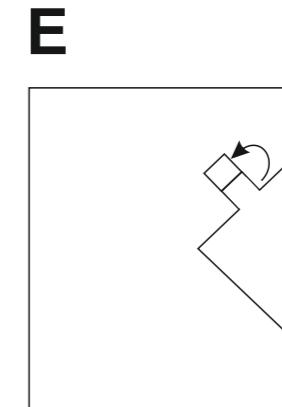
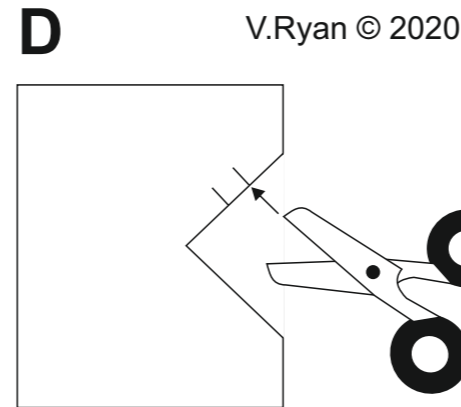
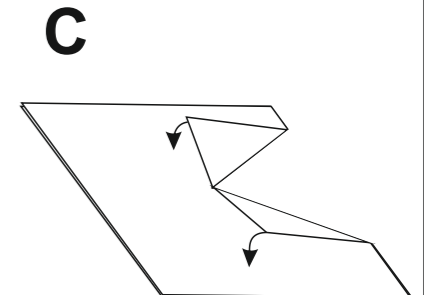
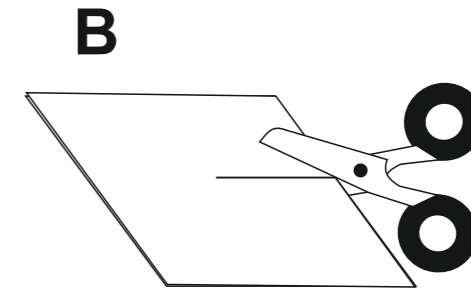
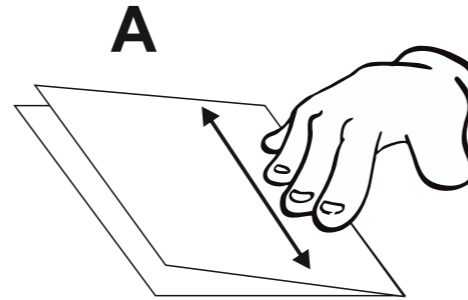
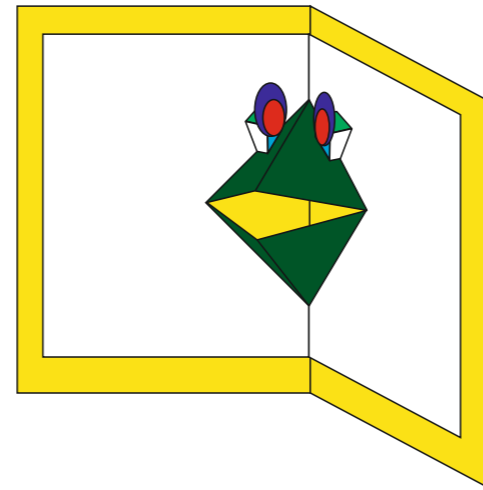
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**ARE YOU READY?  
USE THE MOBILE App!!**

1

Using the techniques shown below, make a moving mouth mechanism. Follow the App and its link to the website, for detailed guidance. You will need paper / card and scissors, to make the final prototype card mechanism.

★ USE THE APP FOR GUIDANCE WHEN MAKING THIS POP-UP ★



Search the internet for images of, 'card mechanism mouth' and collect some of the images.

2

Paste some images in the space opposite.

Which one do you think is the best card 'mouth' mechanism? Why?

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## MOVING FACE / MOUTH MECHANISM

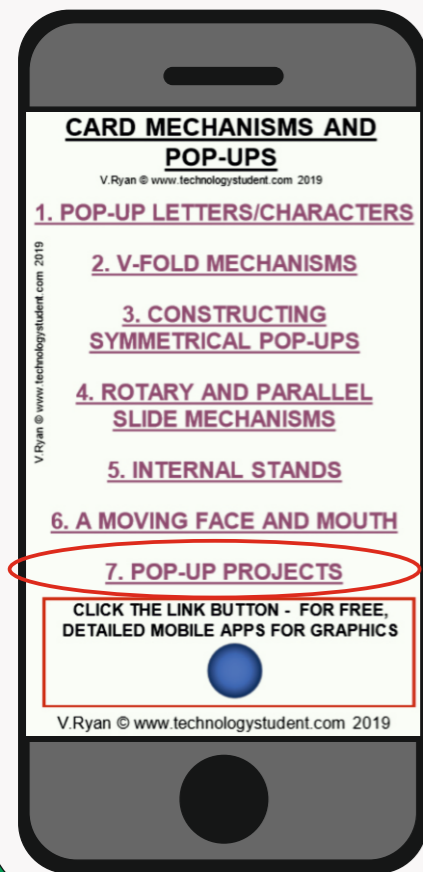
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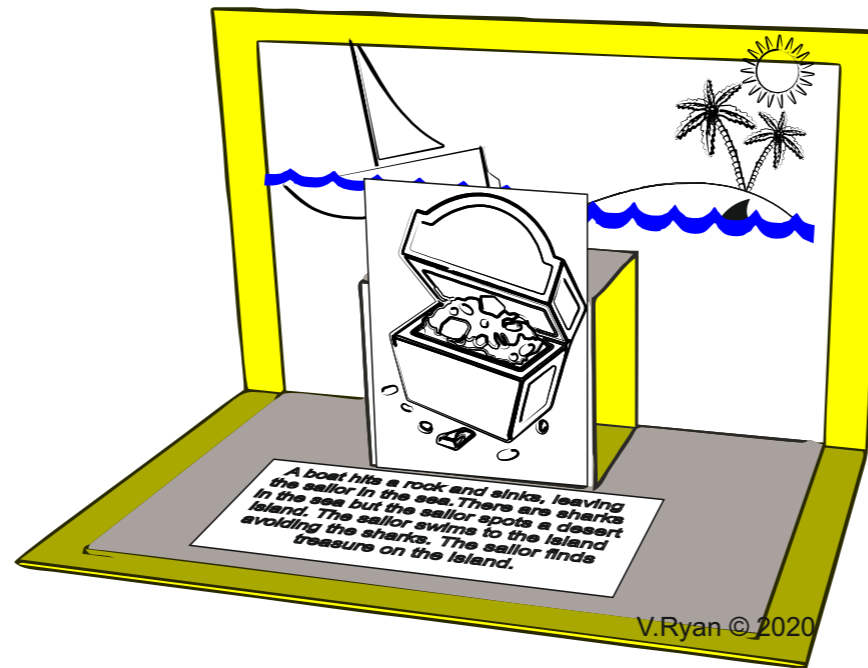
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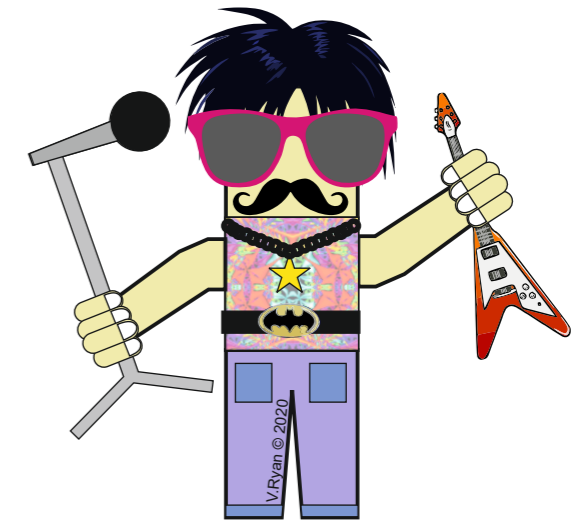
## EXTENSION PROJECTS

★ USE THE APP FOR GUIDANCE WHEN MAKING THIS POP-UP ★

### POP-UP BOOK



### FANTASY PAPER CHARACTERS



1

Using the App to guide you through the Extension Projects:

Have a go at the 'Pop-Up Book' Design Project

AND

'Fantasy Paper/Card Characters' Project.

These are extensive pieces of work and you will need to employ all your creative and imagination skills, AND and the techniques you have developed through this APP, to complete the projects.

**GOOD LUCK!!!**

